REMARKS/ARGUMENTS:

A BRIEF DESCRIPTION OF THE DRAWINGS section is added in the specification. Claims 1, 8, 10, 22-27, 30 and 53 are amended. Support for the amendment can be found at, e.g., page 5, lines 10-13; page 8, lines 3-20; and page 14, lines 13-26. No new matter is introduced.

Claims 1-32 and 34-72 are pending in the application. Reexamination and reconsideration of the application, as amended, are respectfully requested.

SPECIFICATION:

The disclosure was objected to for lack of BRIEF DESCRIPTION OF THE DRAWINGS in the specification. Applicant has amended the specification by inserting the missing section. The objection should be withdrawn.

CLAIM OBJECTIONS:

Claim 8 was objected to for reciting "PNA" in the first appearance. Applicant has inserted the full name of PNA in claim 8, and respectfully requests that the objection be withdrawn.

CLAIM REJECTION UNDER 35 U.S.C. § 112:

I

Claims 1-32 and 34-72 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Applicant respectfully traverses.

Amended claim 1 is directed to a method for detecting a target biopolymer in a sample. The method comprises:

(a) preparing a microarray of said sample by dispensing aliquots of said sample at discrete sites onto a substrate and immobilizing said target biopolymer

on said substrate, wherein the microarray is an array of dots, each dot having a diameter from about 1 to 500 microns, wherein each of said aliquots contains the same amount of said target biopolymer;

(b) contacting said microarray with one or a plurality of probe biopolymers under conditions that allow the formation of one or a plurality of complexes, each complex comprising said target biopolymer and one of said probe biopolymers, wherein said probe biopolymers are deposited on said dots in said microarray; and

(c) detecting the presence of and quantifying said complexes as a measurement for the presence or the amount of the target biopolymer in said sample.

Step (b) of claim 1 involves contacting the microarray with one or a plurality of probe biopolymers by depositing the one or a plurality of probe biopolymers on the dots in the microarray. This step is fully supported by the specification in such a way as to reasonably convey to one skilled in the art that the inventor, at the time the application was filed, had possession of the claimed invention.

For example, the specification discloses that a microarray is prepared by distributing equivalent aliquots of a single sample at discrete, spatially defined locations on a substrate as an array of small dots or printed elements (see, e.g., page 8, lines 3-20). The specification further discloses that the microarray is contacted with a single probe, or alternatively, a plurality of probes (see, e.g., page 14, lines 13-15). Specifically, a first element (i.e., dot) is contacted with a first known probe, a second element is contacted with a second known probe, etc., wherein the first, second, etc. probe may be the same or different (see, e.g., page 14, lines 17-19). In other words, if the first, second, etc. probe are the same, the sample aliquots are interrogated with one probe; if the first, second, etc. probe are different, the sample aliquots are interrogated with a plurality of probes. In addition, the specification discloses that the deposition location is known for each probe, i.e., each probe is

deposited onto a dot for interacting with the target biopolymer and the deposition location of the probe should be the same as the location of the dot. As such, even when a plurality of probes are used, the probes do not have to be tracked by different labels; instead, they can be tracked by their deposition locations (see, e.g., page 14, lines 21-25).

Applicant submits that written description is sufficiently provided in the specification to fully support amended claim 1. By the same token, the written description requirement is satisfied for amended claims 30 and 53, as well as claims 2-29, 31-32, 34-52, and 54-72 depending directly or indirectly from claims 1, 30 and 53. Withdrawn of the rejection is respectfully requested.

II

Claims 1-32 and 34-72 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant has amended the claims as follows:

(1) In step (c) of claims 1, 30 and 53, Applicant has included quantitative measurement of the complexes.

(2) Applicant has amended claim 10 such that the lack of antecedent basis rejection is moot.

(3) Applicant has replaced "a probe biopolymer" with "one or a plurality of probe biopolymers" in claim 1. Claims 22-27 now have proper antecedent basis.

(4) Applicant has replaced "a labeled nucleic acid probe" with "one or a plurality of labeled nucleic acid probes" in claim 30. Claims 45-50 now have proper antecedent basis.

(5) The Examiner rejected claims 67-70 for lack of antecedent basis. Applicants respectfully traverses. Claims 67-70 depend directly or indirectly from

claim 53. Claim 53 recites "a plurality of labeled probes" in step (b). As such, it provides sufficient antecedent basis for claims 67-70 which require more than one probes.

CONCLUSION:

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

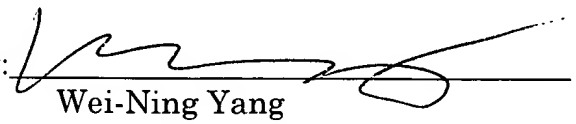
If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 337-6700 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,

HOGAN & HARTSON L.L.P.

Date: October 29, 2004

By: 

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